## REMARKS

In response to the Office Action mailed May 16, 2008, Applicants amended claims 40 and 45. This amendment was made to comply with a requirement of form expressly set forth in the Office Action and therefore are appropriately submitted in this Amendment. (37 CFR §1.116(b)(1).)

The Examiner rejected claims 1, 3, 6, 9, 12, 33, 34, 38-40 and 43-45 under 35 U.S.C. §102(b) as being anticipated by Saito et al., "Deposition of organic electrodes based on wet process for organic devices" Applied Physics Letter Vol 80:1489-1491 (2001) ("Saito"). Applicants do not concede that Saito is prior art to these claims, and certainly do not concede that Saito qualifies as prior art to these claims under 35 U.S.C. §102(b). Nonetheless, even if Saito were prior art to the pending claims, this reference simply does not disclose the subject matter covered by claims 1, 3, 6, 9, 12, 33, 34, 38-40 and 43-45. For example, these claims require an electrode that is opaque and includes a predominantly organic material. Saito does not explicitly disclose such an electrode. Nor does Saito inherently disclose such an electrode. As stated by the United States Court of Appeals for the Federal Circuit, "The mere fact that a thing *may result* from a given set of circumstances is insufficient to prove anticipation." (*Electro Sys. S.A. v. Cooper Life Sciences*, 34 F.3d 1048, 1052 (Fed. Cir. 1994) (citations omitted; emphasis original). Rather, one asserting that a reference inherently discloses certain subject matter must prove that the features are "necessarily present [in the prior art reference] and that it would be so recognized by persons of ordinary skill." (*Id.*) Here, the Examiner has not satisfied the relevant legal standard. Indeed, the Examiner simply concludes that Saito's upper electrode is opaque because "the Al electrode is the transparent side and lamp light shines from the Al side …." (Office Action, p. 3.) Thus, it seems that the Examiner's logic is predicated on the belief that a photovoltaic cell must include an opaque electrode. However, the Examiner provides no evidence to support this position, and the Examiner therefore has not met his burden in this regard. (*See, e.g.*, MPEP §2144.03.) Indeed, as known to those skilled in the art, it is entirely

possible to construct a photovoltaic cell without an opaque electrode.[1] In view of the foregoing, Applicants request reconsideration and withdrawal of the rejection of claims 1, 3, 6, 9, 12, 33, 34, 38-40 and 43-45 under 35 U.S.C. §102(b).

The Examiner rejected claims 1, 3, 6, 9, 12, 33, 34, 38-40 and 43-45 under 35 U.S.C. §103(a) as obvious over the combination of Saricifti and Yu. These claims require a first electrode that photons strike during use, and a different electrode that is opaque and includes a predominantly organic material. Saricifti does not disclose or render obvious such subject matter. Saricifti discloses a device with a substrate. (Saricifti, col. 5, lines 36-38.) In instances where the substrate is not conducting, his device includes an electrode that can be made of metals, mixed oxides or conducting polymers. (*Id.*, lines 36-46.) Saricifti makes no comment regarding the transparency of this electrode. Saricifti certainly does not disclose or indicate that this electrode is opaque. Saricifti's device also includes a second electrode. (*Id.*, col. 6, lines 5-16.) With respect to the second electrode, he states:

> A conducting electrode layer is applied, typically serving as a transparent contact to the heterojunction bilayer. Transparent conducting layers for said contact may be conducting layers made from mixed oxides (such as indium/tin oxide) and conducting polymer layers (such as polyaniline or conducting polyblends of polyaniline). For efficient photoinduced charge transfer, this upper contact desirably is either transparent or covers only a fraction of the area of the device which is exposed to the sunlight. Otherwise the incident light would be absorbed in the electrode rather than near the heterojunction interface. (Saricifti, col. 6, lines 5-16.)

In view of this disclosure, one skilled in the art would understand that it is the second electrode that photons strike during use of Saricifti's device. When the second electrode is transparent, Saricifti says that it may be made mixed oxides or conducting polymers. But, Saricifti does not disclose or otherwise indicate what the second electrode is made of if it is not transparent, and he definitely does not disclose a nontransparent polymer for use an electrode. Thus, Saricifti

[1] Yu discloses that it is not necessary for a diode detector to have an opaque electrode. (Yu, col. 12, lines 47-50.) Applicants do not concede that design considerations for a diode detector and a photovoltaic cell are equivalent, but the Examiner seems to disagree on this point. Thus, if the Examiner wishes to maintain his rejections of the claims, Applicants believe appropriate consideration must be given to Yu's disclosure of a device without an opaque electrode.

discloses a device having an electrode that photons strike during use that can be formed of a transparent polymer or an undisclosed non-transparent material, and a second electrode that is of undisclosed transparency (or opacity). This is very different from a first electrode that photons strike during use, and a different electrode that is opaque and includes a predominantly organic material, as required by claims 1, 3, 6, 9, 12, 33, 34, 38-40 and 43-45. Hence, Saricifti does not disclose the subject matter covered by these claims. Nor, based on Saricifti, would it have been obvious to modify Saricifti to provide such subject matter. As a result, Saricifti does not disclose or render obvious the subject matter covered by claims 1, 3, 6, 9, 12, 33, 34, 38-40 and 43-45.

Yu does not cure Saricifti's deficiencies. Yu discloses diode detectors. (Yu, Abstract.) Yu does not disclose photovoltaic cells. As known to those skilled in the art, there can be significant differences in the design considerations of electrodes used in diode detectors, as compared with photovoltaic cells. Accordingly, it is not at all clear that one skilled in the art would have even considered Yu. Even one skilled in the art would have considered Yu, the result would not have been the subject matter covered by claims 1, 3, 6, 9, 12, 33, 34, 38-40 and 43-45. Yu discloses a diode detector which can include a transparent or semitransparent polymer electrode 11 and an electrode 13, where light strikes electrode 11 during use. (*Id.*, col. 11, line 64-col. 12, line 46 and Fig. 1.) Yu also discloses an alternative diode detector design which can include a transparent or semitransparent polymer electrode 13 and an electrode 11, where light strikes electrode 13 during use. (*Id.*, col. 11, line 64-col. 12, line 46 and Fig. 2.) Thus, while Yu does disclose that he can manipulate his device so that light can strike either electrode 11 or 13 during use, the electrode that the like strikes during use is always transparent or semitransparent. Accordingly, Yu basically teaches that you can manipulate his diode detector design so long as the electrode on which the light impinges is transparent or semitransparent. Indeed, Yu actually states that both electrode 11 and electrode 13 can be transparent. (*Id.*, col. 12, lines 47-50.) Clearly, such a teaching does not cure Saricifti's deficiencies with respect to the subject matter covered by claims 1, 3, 6, 9, 12, 33, 34, 38-40 and 43-45.

The Examiner's logic with respect to how Yu would have been used to modify Saricifti is unclear. But, it seems that the Examiner may believe that Yu teaches that you can basically switch the sides that light strikes a photovoltaic cell during use. Applicants disagree that such an interpretation of Yu is appropriate. But, even if such an interpretation were correct, the result of

combining Yu with Saricifti would be a device having an electrode that photons strike during use that is of undisclosed transparency (or opacity), and a second electrode that can be formed of a transparent polymer or an unknown non-transparent material. This is not a first electrode that photons strike during use, and a different electrode that is opaque and includes a predominantly organic material, as required by claims 1, 3, 6, 9, 12, 33, 34, 38-40 and 43-45. As a result, Applicants request reconsideration and withdrawal of the rejection of these claims under 35 U.S.C. §103(a).

The Examiner rejected claims 5, 7, 14-29 and 47-49 under 35 U.S.C. §103(a) as obvious over the combination of Saricifti and Yu and further in view of Kataoka. These claims require a first electrode that photons strike during use, and a different electrode that is opaque and includes a predominantly organic material. As explained above, the combination of Saricifti and Yu does not render this subject matter obvious. Kataoka does not cure the deficiencies of the combination of Saricifti and Yu. Applicants therefore request reconsideration and withdrawal of the rejection of claims 5, 7, 14-29 and 47-49 under 35 U.S.C. §103(a).

The Examiner rejected claims 8, 30 and 31 under 35 U.S.C. §103(a) as obvious over the combination of Saricifti and Yu and further in view of Lamotte. These claims require a first electrode that photons strike during use, and a different electrode that is opaque and includes a predominantly organic material. As explained above, the combination of Saricifti and Yu does not render this subject matter obvious. Lamotte does not cure the deficiencies of the combination of Saricifti and Yu. Applicants therefore request reconsideration and withdrawal of the rejection of claims 8, 30 and 31 under 35 U.S.C. §103(a).

Please apply any charges or credits to deposit account 06-1050, referencing Attorney Docket No. 21928-018US1.

Respectfully submitted,

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